

OFFICIAL

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Application no. 09/550,867
Amdt. dated April 6, 2004
Reply to Office Action of March 4, 2004

REMARKS / ARGUMENT

A. INTRODUCTION

In the office action dated March 4, 2004:

claims 1-4, 6, 9-11, 14-18 were rejected under 35 U.S.C. § 102(e) in view of U.S. patent no. 6,625,124 to Fan *et al.* (hereafter "Fan");

claims 1, 4, 5, 7-9, 10, 12 were rejected under 35 U.S.C. § 102(e) in view of U.S. patent no. 6,101,552 to Chiang *et al.* (hereafter "Chiang");

B. REJECTION UNDER FAN

In the following, Applicant sets forth the reasons that the present invention is not anticipated by the prior art, stated the reasons why a prima facie case of anticipation was not established in the office action of March 4, 2004, and indicates where the prior has been mischaracterized.

(1) The Present Invention is Not Anticipated

The present invention, as embodied in claims 1, 4, 9, and 14, is patently distinguishable from Fan because the short addresses disclosed by Fan are for *inter*-switch use, in contrast to the present invention in which selected addresses are for *intra*-switch use. In particular, Fan teaches the use of short addresses to transmit packets **between a plurality of switches**. Address ambiguity is avoided by assigning a unique short address to each device in the virtual network (col. 5, lines 60-65). To transmit the packets, each of the switches, e.g., routers/multiplexors in the metropolitan area fiber ring, maintains a list of short addresses with which it makes forwarding decisions. In fact, each router/multiplexor in the ring maintains a list including the short address of every other router/multiplexor in the virtual network. At col. 8, lines 1-3, Fan states: "Each node has a table of **all devices within the virtual network** containing, for each device, at least its long address and its short address." Since every short address is used in every switch to make forwarding decisions, Fan fails to teach a system or method for **using an address solely within the switch to distribute data**, which is the subject of claims 1, 4, 9, 14.

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In contrast to Fan, a switch in the present invention maintains a block of one or more addresses that are used internally and not used for communication with external nodes. A network having a plurality of switches employing the present invention may therefore use the same one or more addresses within each respective switch without any address conflict arising in the network. As a result, the number of available addresses for *inter-switch* communication within the network may be substantially greater than in Fan.

(1) No Prima Facie Case of Anticipation

In attempting to establish a prima facie case of anticipation under Fan, Examiner has stated that the switch recited in various claims of the present application is anticipated by what Examiner refers to as a "virtual switch," which is related to the virtual network (20). The Applicant respectfully asserts that the Examiner's statement fails on at least three grounds:

first, Examiner appears to have acted as his own lexicographer in coining the phrase "virtual switch," the definition and scope of which Applicant can only speculate;

second, Examiner appears to be stating that the so-called "virtual switch" is equivalent to the virtual network, which ignores the numerous functional and structural distinctions between a network and a switch—including interfaces, network communications links, discovery and transmission protocols—without establishing equivalency between them; and

third, Examiner has failed to establish that the prior art explicitly or implicitly teaches every element of the present invention, most notably the feature of the present invention for using an address, e.g., the media access control (MAC) address, solely within the switch to distribute data.

Even if Applicant were to assume *arguendo* that Examiner intended to reject that present invention under 35 U.S.C. §103(a), Examiner has failed to establish that a skilled artisan would be motivated to modify the virtual network in Fan to produce the switch of the present invention. Therefore the Applicant respectfully asserts that a prima facie case

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establishing grounds for rejection has not been made and the rejection should be withdrawn.

(1) Prior Art Mischaracterized

Lastly, Examiner has mischaracterized the cited art. Examiner states at page 2, lines 14-15, of the office action that the "entire virtual network [in Fan] may consist of either a routing device or a set of routing devices." In fact, Fan states that the "entire virtual network may be private in the sense that it is **isolated from the external network by a routing device** or a set of routing devices with a short/long addressing translation mechanism" (col. 4, lines 52-55). Put plainly, a *virtual network* consisting of a single routing device is substantively different from a *virtual network's gateway* to an external network consisting of a single routing device.

For the foregoing reasons, Applicant respectfully asserts that Fan does not anticipate the invention in any claim and requests that the rejection be withdrawn.

C. REJECTION UNDER CHIANG

The present invention, as embodied in claims 1, 4-5, 7-9, 10, and 12, is patently distinguishable from Chiang because Chiang, like Fan, teaches the use of addresses for *inter-switch* use where as the present invention employs selected addresses for *intra-switch* use. In support of the rejection, Examiner states in the office action that the addresses 140.113.x.x are "intra-network address" (page, 4, lines 15-16) and cites Figure 3 and the specification at col. 4, 36-46. While the 140.113.x.x addresses may in fact be **intra-network** addresses, they are clearly not **intra-switch** addresses as claimed in the present application. This conclusion is clearly evidenced by Figure 3 where the console address (140.113.191.220) is known to and used by a plurality of nodes including client console 34 and server 45. With respect to 140.113.191.21, the address appears to be known to and used by gate 35 and the client console 34 for purposes of communicating the packet associated with step S6, and known to and used by gate 45 and the server 45 for purposes of communicating the packet associated with step S9. Since each of the

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140.113.x.x addresses is used by a plurality of nodes to transmit packets, these addresses are not used solely within the switch to distribute data, which is the subject of claims 1, 4, 9, 14.

D. CONCLUSION

For all the forgoing reasons, Applicant submits that the present invention is patently distinguishable from Fan and Chiang. Accordingly, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Pursuant to 35 U.S.C. §132 and 37 CFR §1.121, Applicant has exercised care to avoid the introduction of new matter. Should there be any fees for this action, your office is authorized to draw from deposit account number 02-3979. Should you have any questions, or identify any problem, I would appreciate a telephone call so that this matter may be resolved promptly.

Respectfully submitted,

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